

Bullet Fragmentation Study: Supplementary Data

The Peregrine Fund offers these data and radiographic scans as supporting documentation of a peer-reviewed article accepted for publication in the 2005 winter issue of the Wildlife Society Bulletin, as follows:

Hunt, W.G, W. Burnham, C. N. Parish, K. Burnham, B. Mutch, and J.L. Oaks. 2005. Bullet fragments in deer remains: implications for lead exposure in scavengers. Wildlife Society Bulletin 33(4): xxxx-xxxx.

The table on the next page lists the numbers of bullet fragments we counted in radiographs of the remains of 38 mule deer and white-tailed deer shot by participating hunters during 2002-2004 (see article for methods). Radiographs of Deer 1-15 were of gut-piles collected in the field in 2002, and those of Deer 16-29 (2003) were of individuals from which the abdominal organs had been removed. Radiographs of Deer 30-38 (2004) were of whole and eviscerated deer and their gut piles.



Deer	Rifle	Bullet Type	Bullet Weight	Number of fragments counted				
				Shot Placement	Whole carcass	Carcass (less abdominal viscera)	Eviscerated carcass	Gut pile
1	270 Win	lead core, polymer tip	140	thorax				171
2	243	lead core, lead tip	100	thorax, dorsal				51
3	no data	lead-core, tip unknown	-	no data				164
4	7mm	lead core, lead tip	150	thorax and pelvis				110
5	270	lead core, lead tip	130	neck				0
6	300 Weatherby	lead core, lead tip	165	thorax				350
7	300 Win Mag	lead core, lead tip	150	thorax				44
8	300 Weatherby	lead-core, tip unknown	180	thorax, front-to-rear				144
9	7 mm	lead core, lead tip	150	thorax				78
10	7 mm	lead core, lead tip	150	thorax, spine				329
11	.308 Win	lead-core, tip unknown	168	thorax				9
12	7.62 x 39	lead core, hollow point	148	thorax				10
13	7.62 x 39	lead core, hollow point	148	thorax				4
14	270 Win	lead core, polymer tip	130	neck				2
15	30-06 Springfield	lead core, lead tip	165	thorax				0
16	7mm Rem Mag	lead core, lead tip	160	thorax, exit spine		472		
17	270 Win	lead core, polymer tip	130	thorax		176		
18	7mm Rem Mag	lead core, lead tip	150	thorax			38	
19	270 Win	lead core, polymer tip	130	thorax		153		
20	270 Win	lead core, polymer tip	130	thorax, spine			105	
21	270 Win	lead core, polymer tip	130	thorax to abdomen		93		
22	270 Win	lead core, polymer tip	130	thorax, spine		467		
23	270 Win	lead core, polymer tip	130	thorax, from pelvis			76	
24	270 Win	lead core, polymer tip	130	thorax		106		
25	7mm Rem Mag	lead core, lead tip	150	thorax		392		
26	7mm Rem Mag	lead core, lead tip	150	thorax		221		
27	7mm Rem Mag	lead core, lead tip	150	thorax		25		
28	270 Win	lead core, polymer tip	130	thorax			102	
29	270 Win	lead core, polymer tip	130	thorax		25		
30	7mm Rem Mag	lead core, lead tip	175	thorax	547		224	67
31	7mm Rem Mag	lead core, lead tip	175	thorax	783		544	161
32	270 Win	lead core, lead tip	130	thorax	533		95	521
33	7mm Rem Mag	Solid copper, expanding	160	abdomen	2		2	0
34	270 Win	Solid copper, expanding	130	thorax	1		0	0
35	7mm Rem Mag	Solid copper, expanding	160	thorax	0		0	0
36	7mm Rem Mag	lead core, lead tip	175	abdomen	416		236	218
37	270	Solid copper, expanding	130	thorax	3		2	1
38	270	lead core, lead tip	130	thorax	478		214	450



Deer #16

Spine

Rifle: 7-mm Rem
Magnum

Bullet: lead-core, lead
tip, 160-grain

472 fragments
counted



Deer #16

Spine (top view)

Rifle: 7-mm Rem
Magnum

Bullet: lead-core, lead
tip, 160-grain

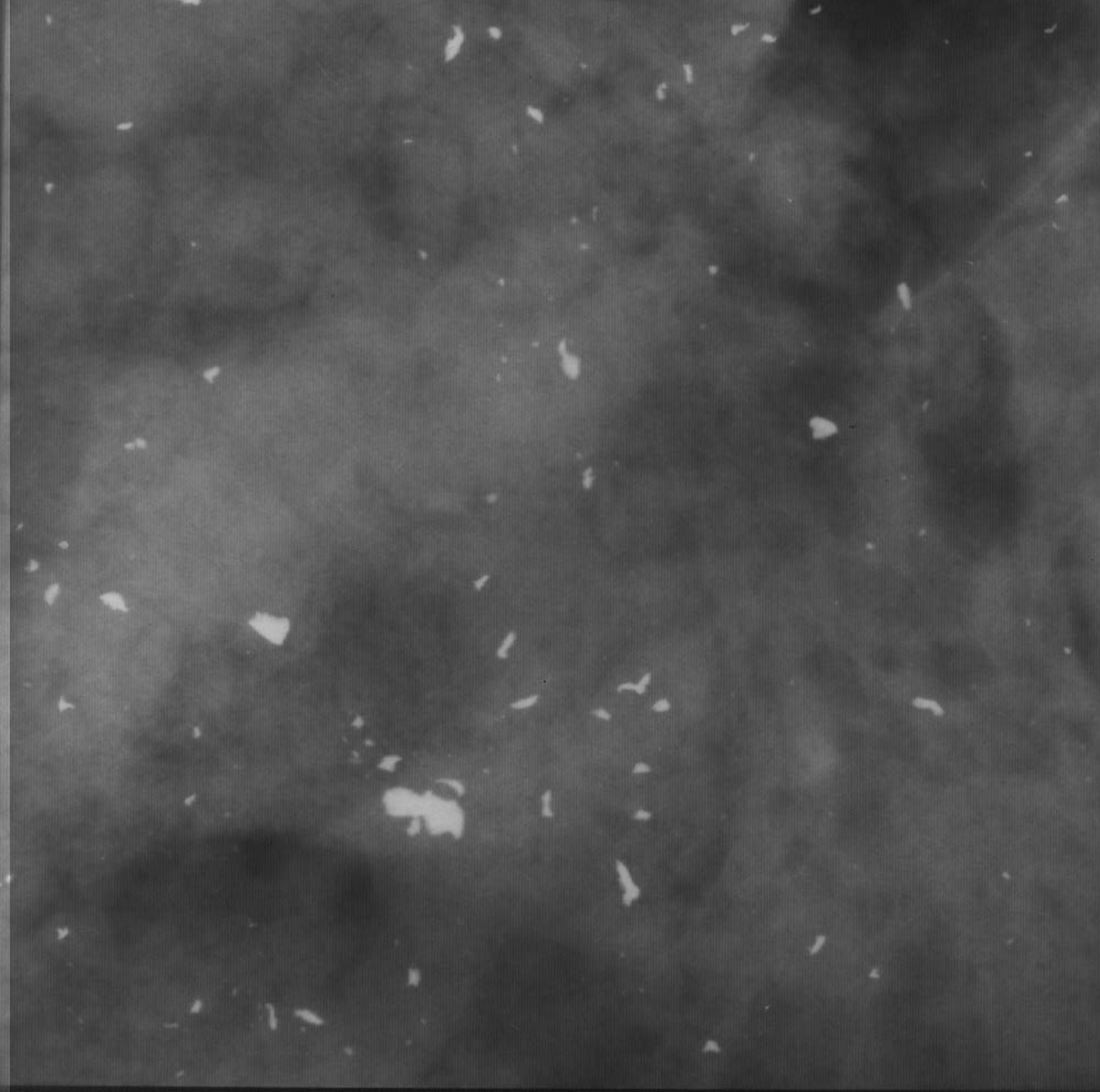


Deer #17

thorax

Rifle: 270 Win

Bullet: lead-core,
polymer-tip, 130-grain



Deer #18

Gut pile (portion)

Rifle: 7-mm Rem
Magnum

Bullet: lead-core, lead
tip, 150-grain

198 fragments
counted



Deer #19

Thorax

Rifle: 270 Win

Bullet: lead-core,
polymer tip, 130-
grain

153 fragments
counted



Deer 20

spine

Rifle: 270 Win

Bullet: lead core,
polymer tip, 130-
grain

105 fragments
counted



Deer #21

thorax

Rifle: 270 Win

Bullet: lead-core,
polymer-tip, 130-grain

93 fragments counted

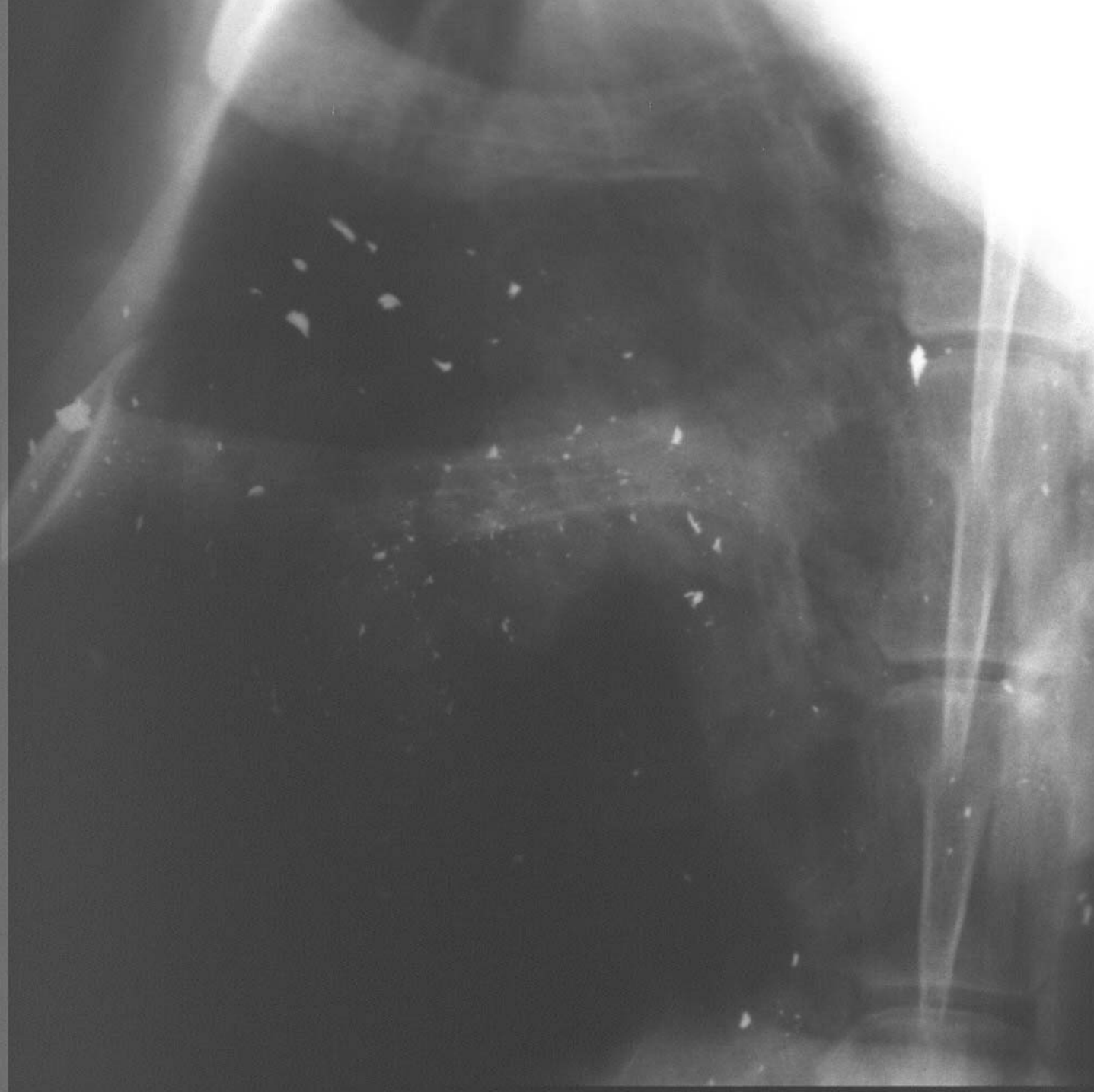


Deer #22

Spine, less viscera

Rifle: 270 Win

Bullet: lead-core, polymer-
tip, 130-grain



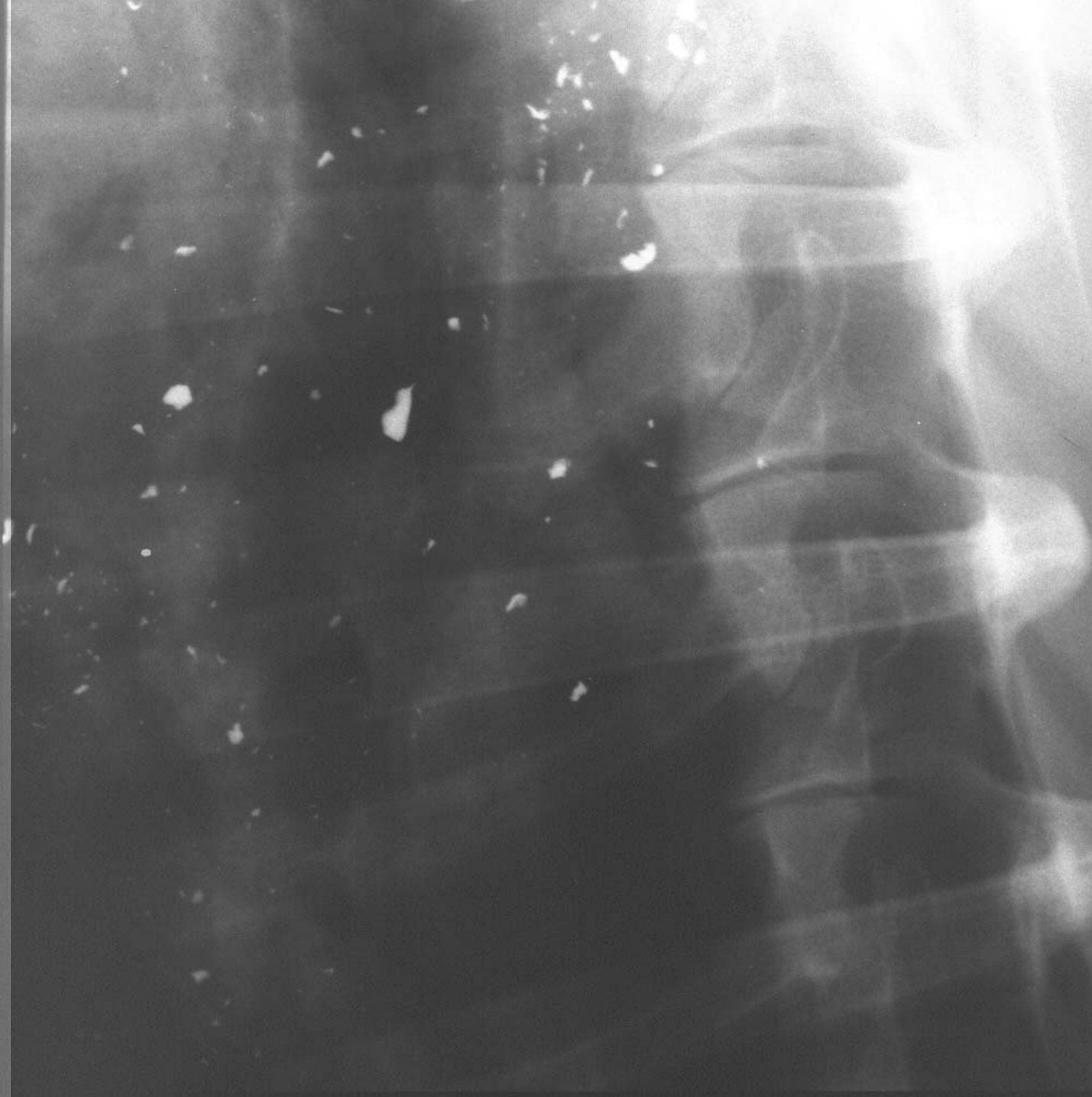
Deer 25

thorax, eviscerated

Rifle: 7-mm Rem
Magnum

Bullet: lead core, lead
tip, 150-grain

392 fragments
counted



Deer 26

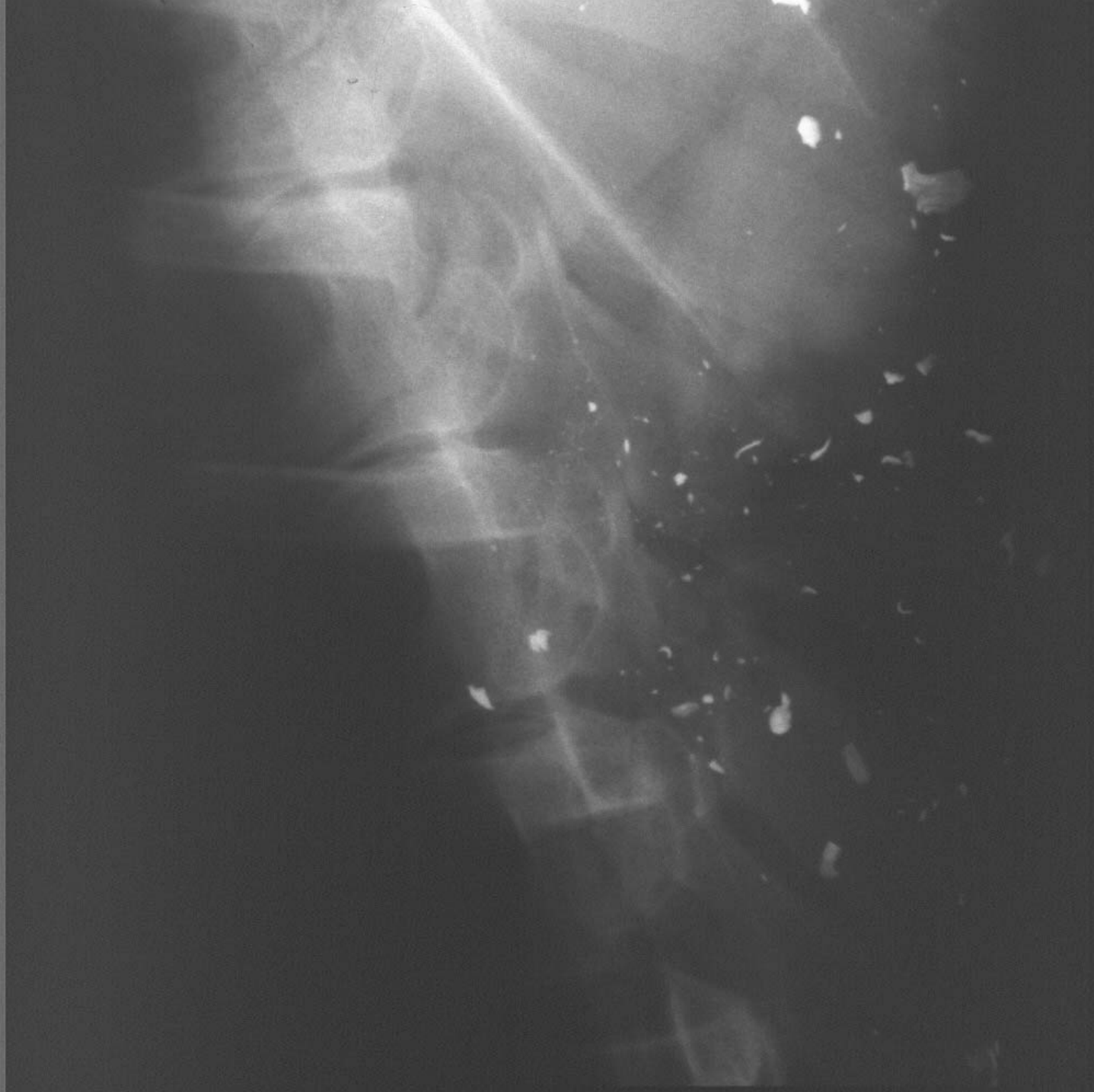
thorax, eviscerated

Rifle: 7-mm

Rem Magnum

Bullet: lead core, lead
tip, 150-grain

221 fragments
counted



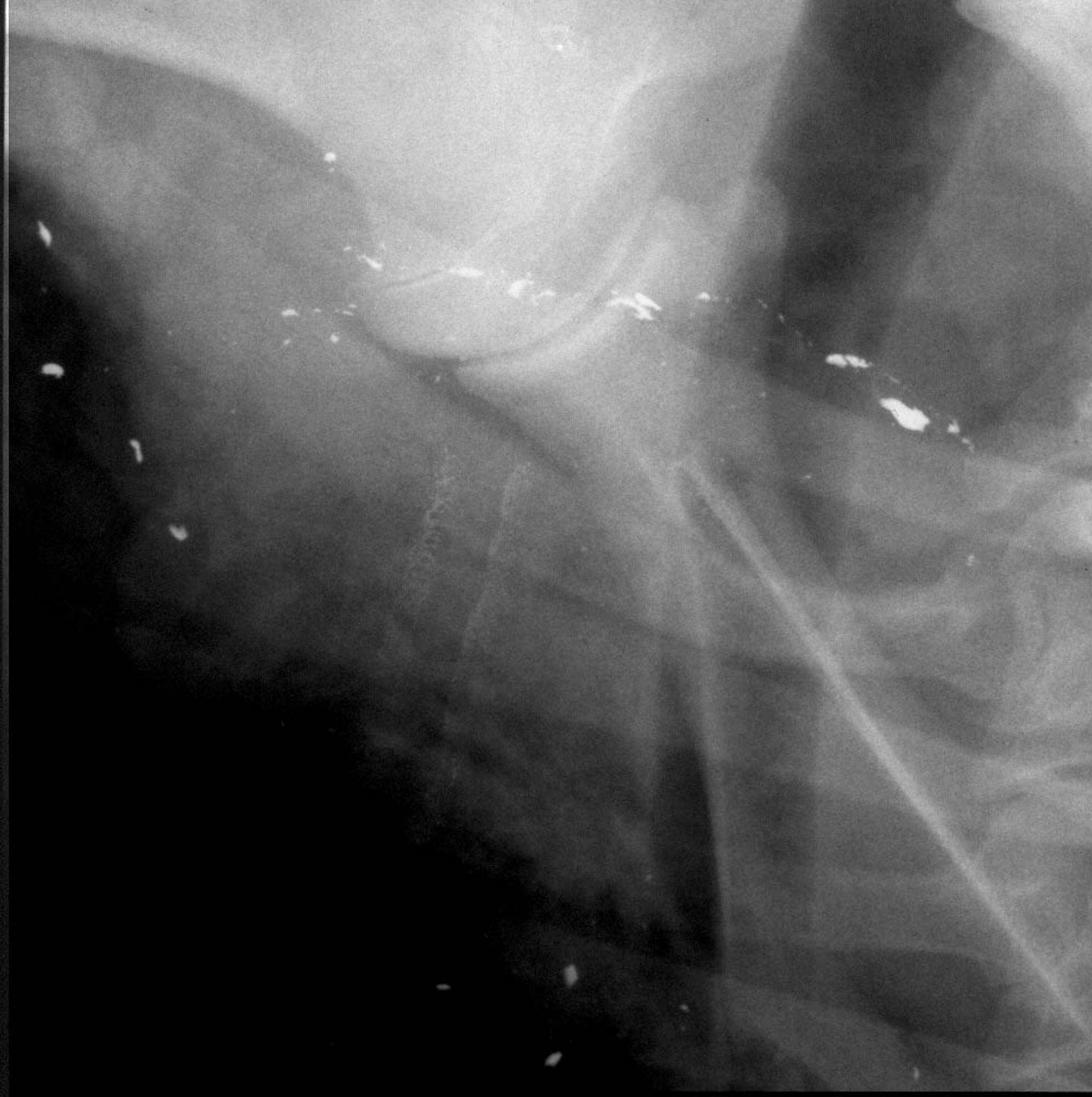
Deer #28

thorax, eviscerated

Rifle: 270 Win

Bullet: lead-core,
polymer tip, 130-
grain

102 fragments
counted



Deer #28

thorax, eviscerated

Rifle: 270 Win

Bullet: lead-core,
polymer tip, 130-grain

102 fragments
counted



Deer #30

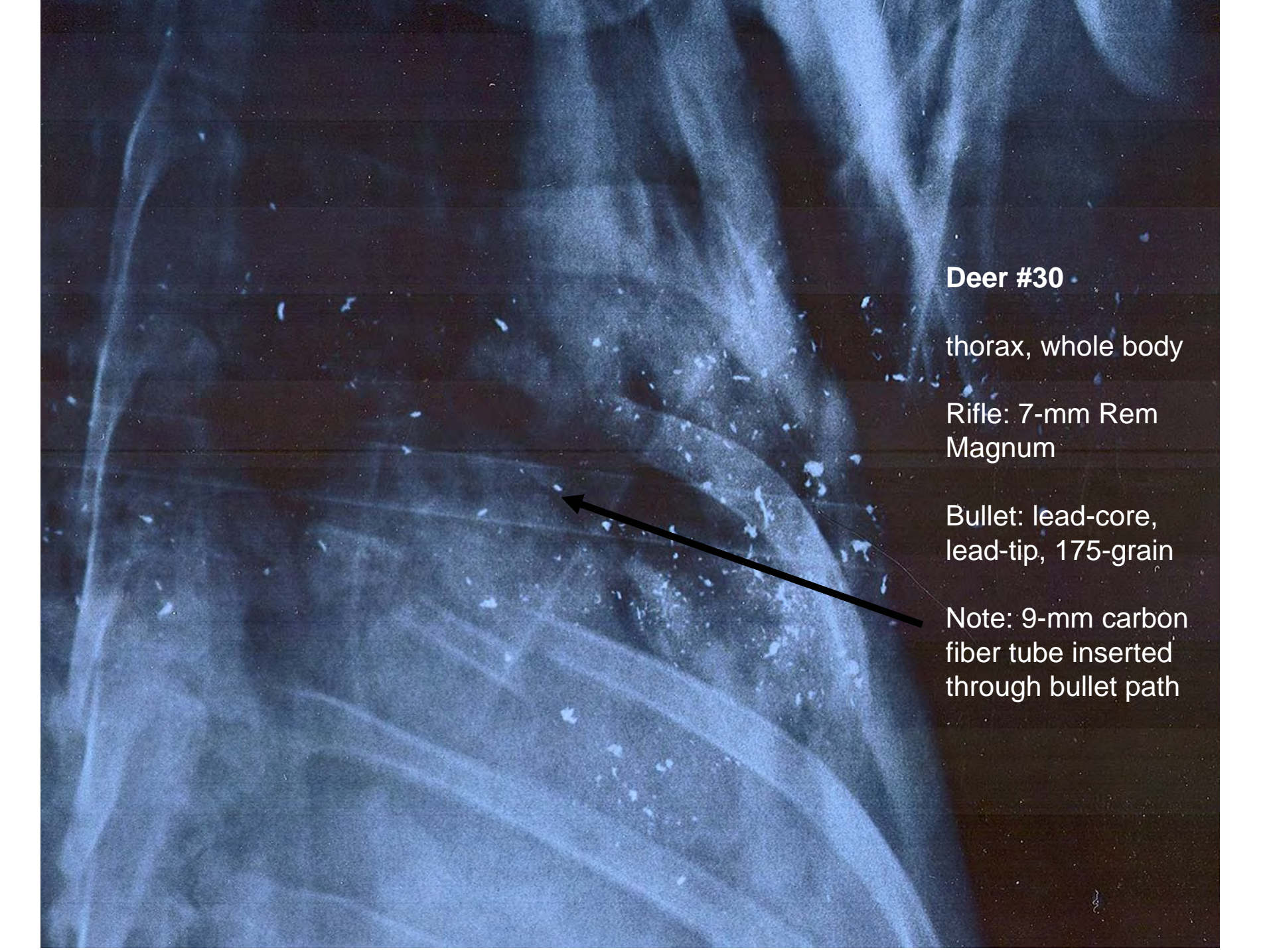
thorax, whole body

Rifle: 7-mm Rem
Magnum

Bullet: lead-core,
lead-tip, 175-grain

547 fragments
counted

Note: 9-mm carbon
fiber tube inserted
through bullet path



Deer #30

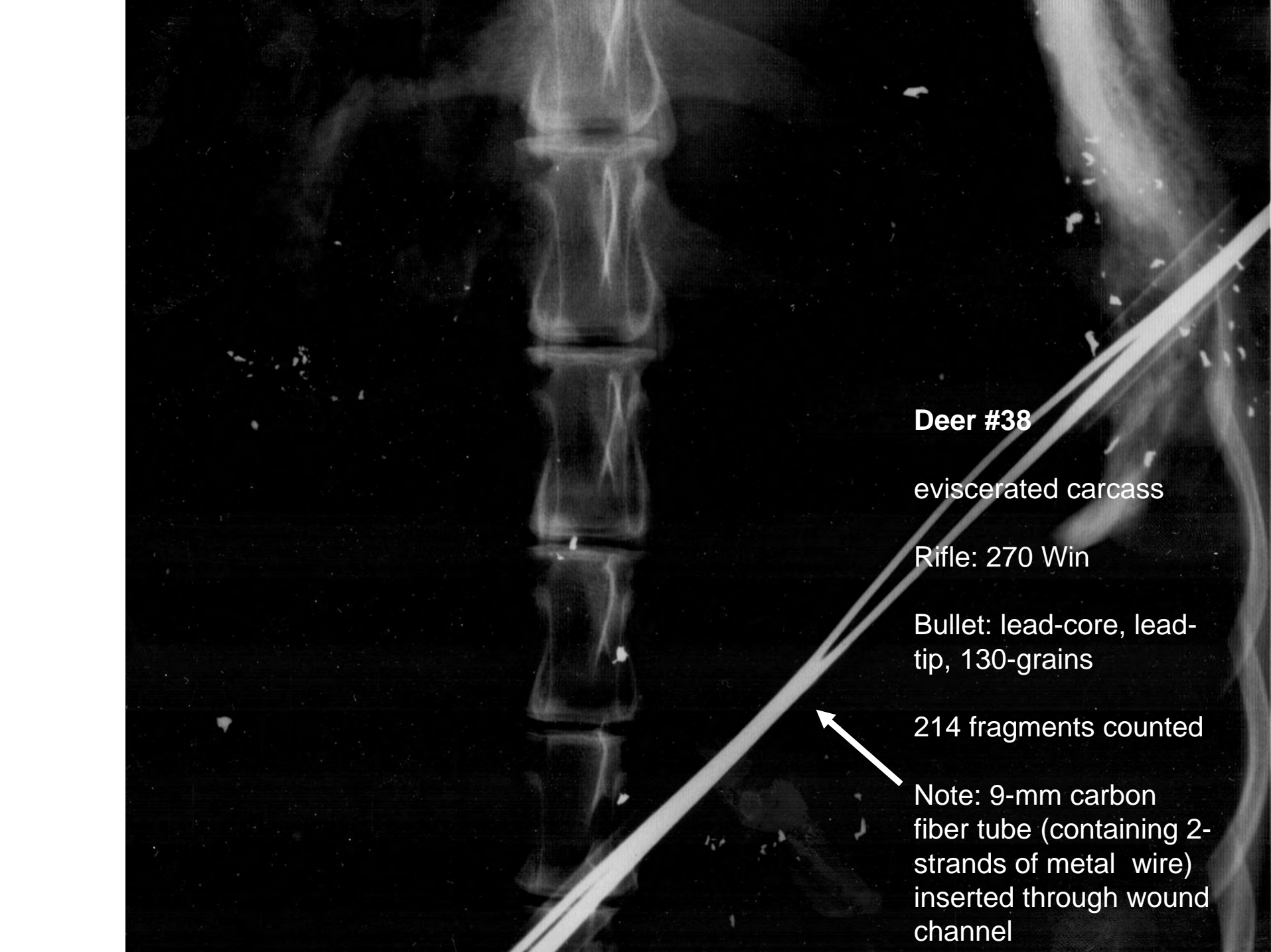
This is a black and white X-ray image of a deer's thorax. The image shows the rib cage and internal organs. A dark, curved line indicates the path of a bullet. A black arrow points from the text 'Note: 9-mm carbon fiber tube inserted through bullet path' to this line. The overall image has a grainy, high-contrast appearance typical of X-rays.

thorax, whole body

Rifle: 7-mm Rem
Magnum

Bullet: lead-core,
lead-tip, 175-grain

Note: 9-mm carbon
fiber tube inserted
through bullet path



Deer #38

This is an anteroposterior (AP) X-ray of a deer's spine. The vertebrae are clearly visible as a series of light-colored, rectangular blocks arranged vertically. A long, thin, dark, slightly curved line, identified as a 9-mm carbon fiber tube, runs diagonally from the lower right towards the center of the image, passing through the vertebral column. The background is dark and shows some faint, irregular white specks, likely representing soft tissue or other anatomical structures.

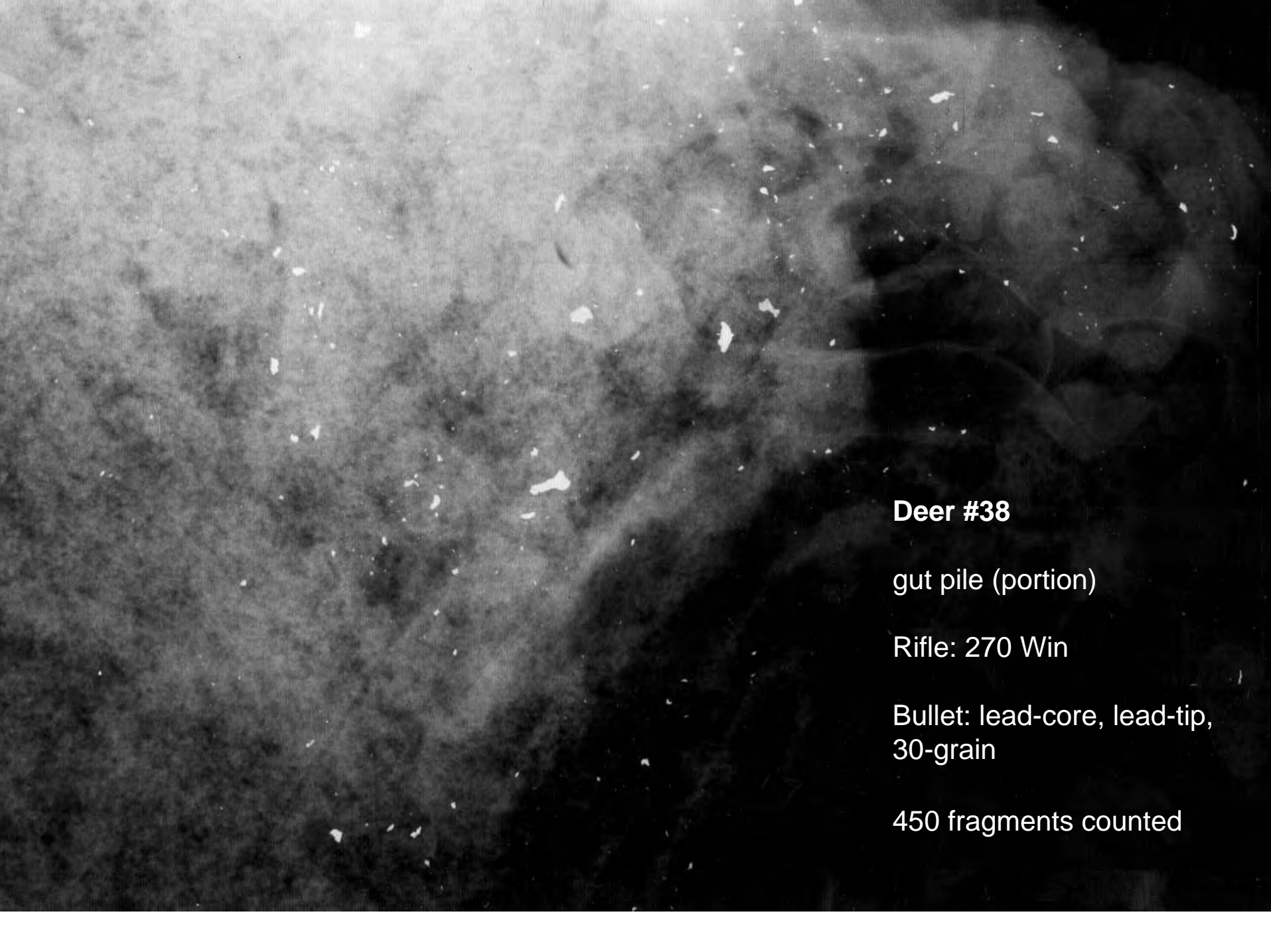
eviscerated carcass

Rifle: 270 Win

Bullet: lead-core, lead-
tip, 130-grains

214 fragments counted

Note: 9-mm carbon
fiber tube (containing 2-
strands of metal wire)
inserted through wound
channel



Deer #38

gut pile (portion)

Rifle: 270 Win

Bullet: lead-core, lead-tip,
30-grain

450 fragments counted